

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



REC'D 23 MAY 2005

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Applicant's or agent's file reference PALGE03248	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/KR2003/000109	International filing date (day/month/year) 17 JANUARY 2003 (17.01.2003)	Priority date (day/month/year)
International Patent Classification (IPC) or national classification and IPC IPC7 C08G 18/00		
Applicant LG ELECTRONICS INC. et al		

1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2.	<p>This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of _____ sheets.</p>
3.	<p>This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input checked="" type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>

Date of submission of the demand 11 AUGUST 2004 (11.08.2004)	Date of completion of this report 03 MAY 2005 (03.05.2005)
Name and mailing address of the IPEA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer BAHN, Yong Byung Telephone No. 82-42-481-5539 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/KR2003/000109

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☐ the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement) under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the drawings:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language English which is

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☒ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets _____

5.

- ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed." and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-3	YES
	Claims	NONE	NO
Inventive step (IS)	Claims	1-3	YES
	Claims	NONE	NO
Industrial applicability (IA)	Claims	1-3	YES
	Claims	NONE	NO

2. Citations and explanations (Rule 70.7)

Reference is made to the following document:

D1 : US 5,840,781 A (Bayer Aktiengesellschaft).

The present invention according to claims 1-3 relates to a composition for preparing polyurethane foam having improved adhesive strength, and a rigid polyurethane foam made therefrom is provided. The composition is prepared using a cyclopentane system as a physical blowing agent and suitably adjusting the kind and content of polyols having low viscosity. The combination of polyols makes the most direct influence on the increase of the adhesive strength and the silicon-active agent improves a mixing efficiency in mixture having very low mutual solubility and stabilizes a cell by inhibiting irregular formation and growth of air foam.

Document D1 cited in the search report, which is regarded as the closest prior art, discloses a polyether polyols formulation and their use in production of hard polyurethane foams. The polyol formulation includes a sucrose-based polyether polyol having an OH number of from about 350 to about 500, and contains cyclopentane as a blowing agent.

Comparing the present invention with D1, the subject matter of claims 1-3 differs in the combination of three polyols having low viscosity. As a result, in the specific kind and content of polyols and other ingredients used, improved adhesive strength can be obtained.

Therefore, the subject matter of claims 1-3 is considered to be novel, to involve an inventive step and to be industrially applicable.

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VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

In the detailed description and claims 1-2 of the present invention, the terminology of "polyisocyanate" should not be consistent throughout the international application. It was written by "polyisocianate". The requirement of Rule 10.2 PCT is, thus, not fulfilled.